

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012287**Date Inspected:** 27-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Li Yang and Wu Zhi Cheng	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No	N/A
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No	N/A
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No	N/A
Approved Drawings:	Yes No N/A	Approved WPS:	Yes No	N/A
		Delayed / Cancelled:	Yes No	N/A
Bridge No:	34-0006	Component:	OBG Trial Assembly	

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 5AW to 5BW (U-Ribs)

This Quality Assurance (QA) Inspector witnessed final tension verification for U-Rib to U-Rib at Panel Point (PP) 31 and PP 32 for Segment 5AW to 5BW. Inspected the all U-Rib along with Big Splice Reinforcing Splice Plate installed at U-Rib locations at 15th, 16th and 17th on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00261 Dated February 26, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220035 and final torque required was 433 N-m,

Bolt sizes used were M22 x 85 RC Set# DHGM220013 and final torque required was 427 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-584.

Note: U-Ribs numbering reference taken from Counter Weight as 1st U-Rib and Cross Beam Side as 39th U-Rib.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Segment 5BW

Punch List item 401

The QA inspector performed inspection for the punch list item 401 for T-Rib web dimension at PP 33 for Segment 5BW as measured web bulge in more than 3mm (when measured by 150mm straight ruler) at Stiffener 19th (Numbering from Bottom Panel towards Side Panel) Cross Beam side, dimension verification performed, found the dimension meeting the requirements.

Report forwarded to team leader for further action.

Segment 5BW

Punch List item 402

The QA inspector performed inspection for the punch list item 402 for T-Rib web dimension at PP 34 for Segment 5BW as measured web bulge in more than 3mm (when measured by 150mm straight ruler) at Stiffener 19th (Numbering from Bottom Panel towards Side Panel) Cross Beam side, dimension verification performed, found the dimension meeting the requirements.

Report forwarded to team leader for further action.

Segment 7AW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 048659 performing repair welding by Shielded Metal Arc Welding process (SMAW) for weld Seg 033B-001 located on PCMK Longitudinal Diaphragm Flange to Floor connecting weld for OBG Segment 7AW (Counter Weight Side). ZPMC CWI Mr. Wu Chi Shen monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-1G (1F)-Repair. The welding was been performed against Welding Repair Report (WRR) B-WR10697 Rev. 0. Please refer pictures attached below for more comprehensive details.

Segment 7AW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 054467 performing repair welding by Shielded Metal Arc Welding process (SMAW) for weld Seg 033A-004 located on PCMK Corner Split Weld at Side Panel to bottom Panel for OBG Segment 7AW (Counter Weight Side). ZPMC CWI Mr. Wu Chi Shen monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-1G (1F)-Repair. The welding was been performed against Critical Weld Repair Report (CWR) B-CWR1212 Rev. 0.

Segment 6CE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067609 performing repair welding by

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Shielded Metal Arc Welding process (SMAW) for weld SP 528-001 099/101 located on PCMK T-Ribs Cope hole below the Floor Beam at FL3 areas for OBG Segment 6CE (Cross Beam side). ZPMC QC Mr. Zhang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2112-FCM-1 and WPS-B-P-2114-FCM-1.

Segment 7AE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 007 located at SEG034A panel point 40 on the cross beam side of segment. Welder is identified as 044779. ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair CWR 1211.

Segment 7AW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 001 located at SEG033B panel point 48 on the cross beam side of segment. Welder is identified as 054467. ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and WR10697 repair procedure.

Segment 6AE

Flux Core Arc Welding (FCAW) repair welding was performed on weld joint 128 located at FB030-001 on the cross beam side of segment. Welder is identified as 220067. ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-2G (2F)-FCM-Repair-1 and WR10680 repair procedure.

Segment 6BE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068091 and 066413 performing repair welding by Shielded Metal Arc Welding process (SMAW) for weld SP88-001-009/010 and 011/012 located on PCMK T-Ribs Hold back welded areas next to Transverse Splice for OBG Segment 6BE (Cross Beam Side). ZPMC CWI Mr. Wang Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-3G (3F)-Repair-1. The welding was been performed against Welding Repair Welding (WRR) B-WR10697 Rev. 0.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)



Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer